

Application No. 10/538,423
Paper Dated: April 23, 2009
In Reply to USPTO Correspondence of December 23, 2008
Attorney Docket No. 4544-051674

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Fig. 1. This sheet, which includes Fig. 1, replaces the original sheet including Fig 1.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

REMARKS

Claims 1, 3-6 are currently pending in this application with claims 1 and 3 being in independent form. Claims 1 and 3 are currently amended. Claim 2 has been cancelled and new claims 7-8 have been added. Support for these amendments can be found, for example, on page 4, line 18–page 6 of the specification. No new matter has been added by these amendments. Removal of the rejections and allowance of claims 1-6 is respectfully requested.

Specification Objections

At pages 2-4 of the Office Action, the Examiner has made objections to the specification of the application and has required:

- the insertion of sequence identification numbers for all sequences recited in the specification and claims;
- A Brief Description of the Drawings; and
- an amended Abstract of the invention.

To address these objections, Applicant is hereby submitting a substitute specification. Applicant has attached hereto a marked-up copy and a clean copy of the substitute specification. No new matter has been added to the application.

Sequence Listing

On pages 4-5 of the Office Action, the Examiner identifies inconsistencies between the sequences listed in the specification; the sequences listed in the Figures; and the sequences submitted in the Sequence Listing. The Examiner also indicates that the new matter must be removed from the Sequence Listing, as there are sequences included in the Sequence Listing which were not originally disclosed in the specification as filed. Applicant has now submitted a Supplemental Sequence Amendment. In view of the submitted Supplemental Sequence Amendment, Applicant respectfully requests the removal of objection to the Sequence Listing.

35 U.S.C. §101

Claim 2 has been rejected under 35 U.S.C. §101 for being directed to non-statutory subject matter. Since claim 2 has been cancelled, this rejection is now moot.

35 U.S.C. §112

Claims 1-2 are rejected under 35 U.S.C. §112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In view of the claim amendments to claims 1 and the cancellation of claim 2, Applicant is now in compliance with 35 U.S.C. §112, second paragraph; therefore, removal of the rejection and allowance of claims 1-2 is respectfully requested.

35 U.S.C. §102

Claim 1 is rejected as being anticipated by Raychaudhuri et al, "Salinity-induced enhancement of L-myo-inositol 1-phosphate synthase in rice (*Oryza sativa* L.), Plant, Cell and Environment (1996) 19, 1427-1442 (hereinafter "Raychaudhuri").

Claim 1 is directed towards an isolated nucleic acid molecule for a salt-tolerant L-myo-inositol 1-phosphate synthase from *Porteresia coarctata* (PINO1) comprising a nucleic acid (SEQ ID 1).

Raychaudhuri is directed towards a study of salinity-induced enhancement of L-myo-inositol 1-phosphate synthase in rice (*Oryza sativa* L.)

Raychaudhuri does not teach the isolated salt-tolerant L-myo-inositol 1-phosphate synthase from *Porteresia coarctata* (PINO1) encoded by the nucleotide sequence (SEQ ID1) as required by claim 1 of the present invention. Because Raychaudhuri does not teach the isolated encoded nucleotide sequence (SEQ ID 1) required by claim 1, Raychaudhuri does not anticipate the claimed invention. Therefore, removal of the rejection and allowance of claim 1 is respectfully requested.

35 U.S.C. §103

Claims 3-6 have been rejected as being obvious over Raychaudhuri et al. in view of Yoshida et al., Temporal and Spatial Patterns of Accumulation of the Transcript of Myo-Inositol-1-Phosphate Synthase and Phytin-Containing Particles during Seed Development in Rice", Plant Physiology 119:65-72 (Jan. 1999) (hereinafter "Yoshida").

Claim 3 is directed towards a process of obtaining cDNA, encoding a salt-tolerant L-myo-inositol 1-phosphate synthase including (i) isolation of a full-length cDNA

for the L-myo-inositol 1-phosphate synthase gene from the leaf of *Porteresia coarctata* by reverse transcription followed by polymerase chain reaction; and (ii) sequencing of the isolated L-myo-inositol 1-phosphate synthase gene wherein the sequenced synthase from *Porteresia coarctata* (PINO1) is encoded by a nucleotide sequence (SEQ ID 1) and a deduced amino acid sequence (SEQ ID 3).

Yoshida et al. is applied for teaching methods of isolating the cDNA encoding the *Oryza sativa* myo-inositol 1-phosphate synthase.

The claimed invention would not be obvious in view of Raychaudhuri and Yoshida, since Raychaudhuri and Yoshida do not teach or suggest the process of obtaining cDNA, encoding a salt-tolerant L-myo-inositol 1-phosphate synthase as required by claim 3 of the invention. Specifically, Raychaudhuri does not teach or suggest isolating the salt-tolerant L-myo-inositol 1-phosphate synthase from *Porteresia coarctata* (PINO1) encoded by a nucleotide sequence (SEQ ID 1) and a deduced amino acid sequence (SEQ ID 3). Yoshida does not account for the deficiencies of the teachings of Raychaudhuri. Therefore, it would not have been obvious to one skilled in the art to combine the teachings of Raychaudhuri and Yoshida to produce the claimed invention. Because claim 3 is not obvious in view of the teachings of Raychaudhuri and Yoshida, removal of the rejection and allowance of claim 3 is respectfully requested.

Additionally, the Examiner suggests that methods of isolating cDNA for the claimed salt tolerant L-myo-inositol 1-phosphate synthase would be the same as those utilized by Yoshida to isolate *Oryza sativa*. However, it is a discovery of Applicants that the nucleic acid and amino acid sequence of the tolerant L-myo-inositol 1-phosphate synthase for *Porteresia coarctata* is different from that of *Oryza sativa* therefore Applicants asserts that the claimed invention would not be obvious in view of the teachings of Raychaudhuri and Yoshida.


Claims 4-6 depend directly or indirectly from and further limit claim 3 and are patentable for at least the aforementioned reasons. Removal of the rejection and allowance of claims 3-6 is respectfully requested.

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CONCLUSIONS

In view of the foregoing amendments and remarks, it is respectfully submitted that currently pending claims 1, and 3-8 are in condition for allowance. Removal of the rejections and allowance of claims 1, and 3-8 is respectfully requested. If there are any remaining issues to be resolved, Applicants request that the Examiner contact the undersigned attorney for a telephone interview.

Respectfully submitted,
THE WEBB LAW FIRM

By 
Thomas Wolski
Attorney for Applicant(s)
436 Seventh Avenue
700 Koppers Building
Pittsburgh, PA 15219
Telephone: (412) 471-8815
Facsimile: (412) 471-4094
E-mail: webblaw@webblaw.com